

## Can Globalisation Induce Economic Growth In Less Developed Economies? Evidence from Nigeria Small Open Economy

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### Abstract

*Effects of globalisation on economic growth in Nigeria were examined. The study methodology was mainly Error Correction Mechanism. The findings revealed that globalisation has negative impact on economic growth in the long run, but positive in the short run. This suggests that while Nigeria participates in globalisation exercise, caution should be exercised in opening up all its growing sectors to international competition, so as not to permanently stiffen the growth of these sectors in the long run with its accompanied negative impacts on the economy*

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**Keywords:** globalisation, economic growth, error correction model, small open economy

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### INTRODUCTION

The focus and aspiration of every economy the world over is achieving some set of macroeconomic objectives aimed at improving the standards of living of its citizens. Some of these macroeconomic objectives include: economic growth, employment generation, price stability, among others. The successive Nigerian governments have clearly demonstrated this approach in almost all its economic development plans. For instance, the major goals of the various national development plans initiated and implemented in Nigeria, particularly the first national development plan (1962-1968), second national development plan (1970-1974), third national development plan (1975-1980), and fourth national development plan (1981-1985), and the various rolling plans of the 1990s attest to this approach .

A critical assessment of the Nigerian situation revealed that there are a lot of imbalances in the Nigerian economy in terms of high inflation rate, large current account deficits, dwindling reserves and fiscal deficits. This unfavourable trend has continued despite the efforts of governments at implementing policy reforms, and in spite of the fact that Nigeria has abundant human resources. This perhaps could be ascribed to the revealed observations of the Central Bank of Nigeria (2003) that a country's growth, over a reasonably long period of time is ultimately determined by the accumulation of productive resources, technological progress and the efficiency with which any existing stock of resources is utilised. This efficiency however could be endogenously or exogenously determined. A special exogenous influence over time has resulted from globalisation. This is a multidimensional policy that has affected not only the economic, social, cultural and environmental aspects of life but also the international relations between governments and

nations of the world (Akinlo, 2003). According to Halliday (2000), Globalisation is a concept that has come into common currency only in the past decade and encompasses, within many varied and imprecise meanings, the breaking down of barriers between societies, economies and political systems and the greatly increased volume of exchange, in terms of trade, finance, people or ideas between them. Halliday (2003) commented that globalisation poses a double challenge to the people and the nation in terms of comprehending the analysis of the process and their future implications, and in terms of fathoming the responses of people to the process. The developments in the world of late point to the fact that globalisation has profound implications for economic development. According to Hachet and Ruet (2006), developing countries might not optimally benefit from this global exercise if they continued to play the protectionist cards while striving for an enhanced development in a globalised world. Thus, in line with the developments in the Asian economy and the developed countries, it becomes necessary to examine the impacts of globalisation on developing countries in terms of labour resource utilisation and economic growth.

Studies in the literature have revealed that there are unsettled controversies concerning the contribution of globalisation to the economic growth of the less developed countries (LDCs). Some of the studies which argued in favour of globalisation for LDCs include Nzekwu (1999), Levine and Renelt (1992), Baldwin and Seghezzeza (1999). Other obverse views which argued that globalisation contributes negatively to economic growth of LDCs include: Ayres (1998), Heilbroner (1996), Gyimah-Brempong (2007). This present study is therefore set to contribute to the extant literature to fill the above research gap of resolving this unsettled issue.

Following from this, this paper is divided into five sections thus: section two reviews related literatures, section three discusses the conceptual framework of globalisation; section four presents model specification and data sources; section five presents techniques of analysis; section six covers the presentation and discussion of results, while section seven concludes the study

#### REVIEW OF RELATED LITERATURES

literature is replete with studies on the impact of globalisation on the economies of the world. Some of these studies and the theories of globalisation will be reviewed in this section. Kay (1997) studied the impact of globalisation on the peasant agriculture in Chile. He observed that globalisation had produced a negative effect on the peasant farmers in the countryside. This connotes that globalisation has created occupational duality in Chilean agriculture. Kay (1997) however concluded that state intervention in the context of globalisation to re-position the state to sectorally benefit from the integration of the economy is of importance.

Yang (2003) examined the impact of globalisation on higher education development. He contended that globalisation is in the main economic, and pointed out that global exchanges in the economic, cultural and educational areas are increasingly tending unequal. Yang thus questioned the conventional acceptance in all quarters that globalisation is a positive force for higher education and society as a whole. Thus, if globalisation is not handled with utmost care, it could have a destabilising effect on higher education in an economy.

Scrivasulu (1997) examined the impact of liberalisation on 'Beedi' workers and observed that liberalisation has the tendency to aid the production of cheap mini cigarettes by some manufacturers; thus posing some difficulties to the existing firms' sales and their workers. This is capable of diluting the workers' union by the so called beedi-barons against the mini-cigarette manufacturers. He concluded that liberalisation may, of course, polarise the workers' movement in an economy. His position accentuates the disintegration potency of globalisation on labour union. As observed by Aluko (2003), recent statistics showed that the third world poor countries representing eighty per cent of the total world population accounted for twenty one per cent of the world income in 2000. About eighty five per cent of international capital investment was made in Europe, North America and Japan (called the Triad) in the last decade compared with similar investments in 1980. However, such investments flowing to developing countries which were 55 per cent of the world's direct and portfolio capital investments in the 1980s had significantly fallen to 35 per cent in 1980 with the advent of globalisation. His position is thus that

globalisation is rather destructive to the developing countries. Aluko (2003) observed further that of the world's gross domestic product (GDP), which was about 25 trillion US dollars in 2000, only about 5 trillion US dollars was produced in the developing countries where about 85 per cent of the world population reside. About 35 per cent of the population of the poorest countries received less than one US dollar per day in 2000. Among the developed countries themselves, welfare dualism could be observed. For instance, in Western Europe, with average annual per capita income of 22,000 dollars, it was estimated that above 16 million people lived below the official poverty level with 3.5 million homeless population and 8 million unemployed. Such a scenario is even obvious in USA where despite the increase in GDP by about 35 per cent, the real wages of the average low earners fell significantly by 15 per cent, despite the rise in the real earnings by about 20 per cent of the corporate companies Aluko (2003).

Ojo (2003) was of the view that globalisation effects were mixed. He however showed that globalisation had unleashed vitality which had moved the world economy to arena of development by way of new technologies, greater availability of, and flow of information worldwide which has benefitted the world in the areas of education, health, and social development. Ojo (2003) however recommended that there was the need to urgently manage globalisation better so as minimise its negative effects and diffuse the opportunities and benefits resulting from it. The conclusion emanating from the study conducted by Obadan (2003) on globalisation and economic management of Africa, using descriptive analysis, appears to support the position of Ojo (2003). Obadan showed that the phenomenon of globalisation had opened a greater potential for economic growth and unrivalled opportunities for developing economies to increase their living standards. Obadan noted that despite the opportunities that globalisation stands to offer developing countries, Africa remains very inelastic to the developments in other parts of the world. He therefore concluded that since Africa could not remain in limbo, she needed to meet the world challenges through implementing appropriate strategies and policies in order to maximise the benefits emanating from globalisation.

In a similar study, based on stylised facts and econometric methods, Uwatts (2003) observed that globalisation could potentially benefit the African economy. He remarked that at present, it appeared that globalisation was not benefitting the developing economies. He therefore concluded that the potential benefits derivable by African countries depended largely on how fast they could be integrated into the rest of the world and their preparedness to meet the global financial shocks emanating from globalisation. The findings of the study by Akinboyo (2003) based

on Nigeria appeared to support the need for preparedness on the part of African countries to meet the challenges emanating from globalisation when he noted that for Nigerian financial sector to optimally benefit from globalisation resulting from information technology, the Nigerian government should necessarily put in place appropriate infrastructure.

The above view of Akinboyo was supported by Olayiwola and Ogundiran (2003). They saw the need for the Nigerian government to be infrastructurally conscious to derive maximum benefits from globalization. In support of the foreign direct investment coming from globalisation into the less developing countries (LDCs), it has been argued that the operations of transnational corporations coming to LDCs through this process are to a large extent meant to promote development and integrate developing countries into the network of global production and enhancement of efficiency and growth (Julius, 1994; UNCTAD, 1992; Britian, 1995). Despite this potential benefits, some authors have argued that a lion share of FDI goes to the developed countries, suggesting an asymmetric benefits that largely favours the developed world at the expense of LDCs (Dickens, 1992). As pointed out by Hirst and Thompson (1992), seventy-five per cent of the group of five (G5) countries received 75 per cent of the world FDI, but in 1983 and 1989, only 19, 7 per cent of the world FDI went to the developing countries. Hirst and Thompson (1992) however noted that although the share of the LDCs increased to 29.2 between 1990 and 1994, the absolute size had not been encouraging.

Akinlo (2003) examined the impact of globalisation on the stock market and observed that globalisation measured as growth of point and stock of foreign direct investment (FDI) has significant positive effects on the stock markets in African. The results revealed that the growth rate of the economy. Has a positive effect on the economy. Furthermore, in analysing the channels of through which FDI impacts on growth, the findings revealed that FDI stock has significant impact on capital formation and factor productivity. Thus as the FDI increases, capital formation and stock market build-up are enhanced. Accordingly to Dorothea, (2005), world economy has correspondently expanded with healthy growth in employment and labour productivity in the context of globalisation. The pattern of unemployment in the countries, of the world has spatial dimension in that while the unemployment rate in the world in 2005 was 6.3 percent; that of sub-saharan African has around 6.3 percent. Robinson noted three basic features of globalization process as comprising: first, the rise of truly transnational capital divorced from specific countries, and the increasing global mobility of this capital, freed from the border of nation-states. Second, the individual state of the world capitalism is

now superseded by a new transnational phase of capitalism; and third, is the replacement and transformation of the nation-state institutions by an emergent transnational configuration of social life.

Jha (2003) argued that in the era of neo-liberal in India, the problem of unemployment had assumed crisis proportions despite the slow growth rate of labour force. The argument here is that there could be a puzzle of high unemployment co-existing with low growth rate of labour force in an economy, The opinion of Asiedu and Gyimah-Brempong (2007) is different from that of Jah (2003). They investigated the impact of liberalisation of investment policies on employment and investments by multinational corporations in Africa using data from thirty-three countries and dynamic panel estimation. They found out that liberalisation has significant and positive effect on investment. Also, liberalisation is presumed to have an indirect enhancing influence on multinational employment generation through its impact on multinational investments in Africa. Thus globalisation is identified as a crucial factor in poverty reduction in Africa. The results from study by Asiedu and Lien however contradicted the view of Asiedu and Gyimah-Brempong (2007) who concluded that liberalisation had no effect on foreign direct investment flows in Africa.

In a study carried out by Lang(1998), in New Zealand on the effect of trade liberalisation on wage and employment using ordinary least squares, it was discovered that trade protection was greater in low-wage industries than in high-wage industries.this implies that New Zealand's trade policies did not only work against its natural comparative advantage also reduced workers' rents. The conclusion that could be drawn is that liberalisation largely enhances substantial improvements over the previous restricted trade policy. Kwanashe (1999) noted that the massive advances in technology resulting from globalisation had enabled the developed countries to perform the tasks that earlier required the absorption of surplus labour flowing from developing economies. Thus the comparative advantage that the developing economies enjoyed was being eroded.

### **Conceptual Framework of Globalisation**

The conceptual framework for this study was derived from the work of Akinlo (2003) with some modifications. As demonstrated in figure 1, globalisation enhances openness of the economy and augments the tempo of trade. Trade, on its part, engenders increased inflows and outflows of foreign investments. These flows in the economy could however result into either a credit or debit balance depending on the magnitude of such flows. Openness and increased trade result in high incomes which invariably flow into the economy to strengthen saving and investment in the economy. The strength

of Investment has the potentials to buttress the level of economic growth. As the framework shows, the result from openness and increased trade could be negative. This negative balance then flows to weaken the strength of economic growth. In a similar vein, the manufacturing sector and the labour employment sector flow into economic growth sector, but these two sectors could equally receive a feedback from economic growth. It is equally recognised in the framework that other social and political factors could impact on the manufacturing sector and labour employment; suggesting the significance of government policies in the overall economic growth. It follows that the decisions and the actions of the government and, by derivative, the actions of government institutions, could go a long way to contributing increasingly to the economic growth of the nation.

The model presented in figure one consists of four units: Institutional reforms/Globalisation, Openness/world trade, economic growth, labour Employment and Real sector development (Manufacturing sector. Drawing from Akinlo (2003), the relationships among the four units that form the corpus of this study are explicated below:

1. Institutional reforms (i. e. economic, social, political, financial) which are driven by improvement in technology, communication and public policy and appear to lower international transactions costs and enhance world economic integration.
2. Foreign investment, inflows and remittances and, increased trade are enhanced by increased globalisation.
3. Foreign Investment flows, especially FDI, are increasingly boosted as countries open up to greater world trade,
4. As investment flows increase, exports in the recipient countries engender growth of savings, investment;
5. Improvements in savings and investment resulting from increased productivity enhance labour market conditions particularly employment.

The model applied in this study draws from the work of Obaseki (1991) and Ndiyo and Ebong (2003). The model is based on the national income accounting framework in an open economy which shows that aggregate demand (AD) is expressed as follows:

$$AD=Yd=C+I+G+(X-Z) \tag{1}$$

Where Yd =aggregate demand (AD)  
 C=Consumption expenditure; I=Investment Expenditure; G=Government Expenditure; X= Value of export goods and services; Z= value of import goods and services. Aggregate supply is also expressed as an identity as:

$$AS= Ys= C+S+T \tag{2}$$

Where Ys = Aggregate Supply (AS); S=Savings; T=taxes.

Following the Keynesian theory, aggregate demand and aggregate supply are equated to establish the equilibrium level of output and employment. Therefore,

$$C+S+T = Y= C+I+G+(X-Z) \tag{3};$$

$$\text{By re-arrangement, } Y-(C+I+G)=X-Z \tag{4};$$

$$Y-A=X-Z \tag{5};$$

Where A= (A+I+G) is the domestic assumption. X-Z is the external current account balance.

Equation (5) shows excess of domestic absorption over national income being equal to external current account (CA) deficit while a surplus on Current Account (CA) implies that domestic absorption is smaller than domestic national income. When Equation (5) is augmented by portfolio balances, the model takes account of of factors constituting the external components of output. The portfolio adjustments thus account for changes in yield that could arise from interest rate differentials. Following the Mundel-Fleming model of open macro-economics, the ultimate difference between the yield on domestic and external investments could converge. This provides supporting evidence for the competitive trade relations (Obaseki, 1997, 1999).

To account for the various financial integration and trade openness model as demonstrated by Obaseki (1999), the following models are estimated:

$$GDP=f(OPEN,FDI,EXR,FEXR,NFI,INF,MS,BOP) \tag{6};$$

where GDP is gross domestic product; OPEN is the openness of the economy (Exports plus Imports divided by GDP); FDI is foreign direct investment; EXR is the external reserves; FEXR is the foreign exchange rate; INF is Inflation rate; MS is the Money Supply; BOP is the Balance of Payments; and EMP is the Employment level.

If equations (6) is log-linearised, it can be transformed correspondingly as follows

$$\text{LogGDP}=\alpha_0+\alpha_1\text{LogOPEN}+\alpha_2\text{LogFDI}+\alpha_3\text{LogEXR}+\alpha_4\text{LogFEXR}+\alpha_5\text{LogINF}+\alpha_6\text{LogMS}+\mu \tag{7}$$

Where  $\alpha_0 < 0$ ;  $\alpha_1 < 0$  ;  $\alpha_2 > 0$  ;  $\alpha_3 > 0$ ;  $\alpha_4 > 0$ ;  $\alpha_5 > 0$ ;  $\alpha_6 > 0$  .

**DATA SOURCES**

The data for this study are sourced from the Central Bank of Nigeria Statistical Bulletin, World Development Inditors, International Monetary Funds publications and National Bueau of Statistics publications.

**Techniques of Analysis**

The methods of analysis adopted in this study focus on investigating the the influence of globalisation proxied as the degree of openness of the economy and some other policy variables on economic growth and employment level in the Nigerian economy. Error Correction technique is used to capture both the short run and long run dynamic adjustments in the

models. Unit roots test and cointegration tests are carried out initially to test for the robustness of the data series. Specifically unit root is conducted to determine the stationarity of variables using Augmented Dickey Fuller (ADF) test. As expounded by Granger (1981) and Engle and Granger (1987), a non-stationary series is integrated of order (d) if it achieves stationarity after being differenced d times. Such a series is expressed as  $I(d)$ . It is possible for combinations of some series to achieve long run equilibrium, although they may be individually non-stationary. Such a relationship shows that the series are cointegrated. Of necessity is that for some series to cointegrate in the long run, they must be of the same order of integration. As long run relationship is established among the same order of integration series, a regression containing all the variables of cointegrating vector will have a stationary residual term. Asteriou and Hall (2006) argued that where there are more than two variables in a model, there is a possibility that the emerging cointegrating vectors governing the joint evolution of all the series will be more than one. This logic presents the superiority of  $\Delta(LGDP)_t = \alpha_0 + \sum_{i=1}^n \beta_i \Delta LGDP_{t-i} + \sum_{i=0}^n \beta_i \Delta LOPEN_{t-i} + \sum_{i=0}^n \beta_i \Delta LFD_{t-i} + \sum_{i=0}^n \beta_i \Delta LEXR_{t-i} + \sum_{i=0}^n \beta_i \Delta LFXR_{t-i} + \sum_{i=1}^n \beta_i \Delta LINFL_{t-i} + \sum_{i=0}^n \beta_i \Delta LMS_{t-i} + \beta_1 ECM_{t-1} + \xi_t \dots \dots \dots (8)$

The  $ECM_{t-1}$  in equations (8) is the one-year period lag of the economic growth error correction term obtained from static regression of equations (7). As all the variables are first-differenced to make them stationary, Ordinary Least Squares method gives consistent and valid estimate (Enders, 1995).  $\Delta$  implies first-difference; and the speed of adjustment is represented as  $\beta_1$

**PRESENTATION AND DISCUSSION OF RESULTS**

**Test Results for Unit Roots:** The results of stationarity test to examine the order of integration of our time series using Augmented Dickey Fuller (test) are presented in table 1. Before the tests were carried out, the series were first examined to check whether they are trended or not. It was observed that the following series are trended: foreign direct investment, external reserves, foreign exchange rates, gross domestic product, and broad money supply; while the variables of employment, inflation, and openness remain untrended. This fact is crucial in carrying out unit roots test.

Notes: ADF test statistics are computed using regression with an intercept, with or without linear trend. Critical values are calibrated from Mackinnon (1991) as reported by E-views software 6.0. as follows: Critical values for intercept without trend are: 1% (-3.6329); 5%(-2.9484); and 10% (-2.6129). Critical values for intercept with trend are: 1% (-4.3393); 5% (-3.5875); and 10% (-3.2292). From

Johansen Cointegration test over the Engle Granger approach. Thus Johansen Cointegration approach will be adopted in this study,

**Error Correction Model (ECM)**

A short run model was estimated which represents the dynamic error representation of the series specified in equations (8) and (9) above. For any set of cointegrated variables, there is evidence of error correction representation of the data. The error correction mechanism is a systematic disequilibrium adjustment process by which an untamable drift from equilibrium is prevented. From these equations, we obtain one year period lag error correction terms which are then incorporated into the overparameterised models formulated to deal with mis-specification problems. The overparameterised models are however reparameterised as Error Correction Model. Through the process of continuous stepwise reduction of relatively insignificant parameters in the overparameterised ECM models, parsimonious models are obtained. The transformed models take the following forms:

table 1, all the series except the log of employment and inflation show evidence that they are integrated of order one. The log of employment and inflation are stationary at levels.

Table 1: ADF Tests Results for Unit Roots

Variables	Type of ADF Test	ADF Statistics (At Levels)	ADF Statistics (At first Diff)	ADF Statistics (At Second Diff)	Order of Integration
LEMP	Intercept without trend	-3.3041	-6.2823	-4.4522	I(0)
LMS2	Intercept with trend	-2.7173	-6.4607	-8.8381	I(1)
LEXTRES	Intercept with trend	-2.7220	-7.4098	-5.1437	I(1)
LFDI	Intercept with trend	-1.7405	-4.8963	-9.7738	I(1)
LFEXR	Intercept with trend	-2.3029	-4.8811	-8.8435	I(1)
LGDP	Intercept with trend	-1.7270	-4.2014	-6.9399	I(1)
LINFL	Intercept without trend	-3.5870	-6.5765	-6.3276	I(0)
LOPEN	Intercept without trend	-3.5763	-7.3573	-10.7560	I(1)

**Test Results for Cointegration**

As ADF test has shown, the time series are mainly integrated, therefore there is the need to check for long run convergence to a unique equilibrium by all the integrated series. The results of Johansen

cointegration test for the model of economic growth are presented in tables 2. As shown in table 2, all the variables in employment model are cointegrated with 2 cointegrating vectors. Also, there is evidence of

cointegration in all the variables in economic growth model with 2 cointegrating vectors.

Table 2: Johansen Cointegration Test Result for Economic Growth model variables

Sample (adjusted): 1972 2005  
 Included observations: 34 after adjustments  
 Trend assumption: Linear deterministic trend  
 Series: LGDP LEXRES LFDI LFEXR LINFL LMS2 LOPEN  
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	F	Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.857412	176.1989	125.6154	0.0000
At most 1 *	0.755657	109.9739	95.75366	0.0037
At most 2	0.480135	62.06174	69.81889	0.1776
At most 3	0.368685	39.81944	47.85613	0.2290
At most 4	0.356530	24.18112	29.79707	0.1929
At most 5	0.211832	9.191187	15.49471	0.3480
At most 6	0.031770	1.097708	3.841466	0.2948

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level  
 \* denotes rejection of the hypothesis at the 0.05 level  
 \*\*MacKinnon-Haug-Michelis (1999) p-values

As shown in table 2, all the variables in employment model are cointegrated with 2 cointegrating vectors. Similarly, there is evidence of cointegration in all the variables in economic growth model with 2

cointegrating vectors as presented in table 3. When the model of economic growth is normalised to Gross Domestic Product (GDP), the result obtained is presented in table 3

Table 3: Normalising the Economic Growth Model to Economic Growth Variable (Standard Errors in Parentheses)

LGDP	LEXRES	LFDI	LFEXR	LINFL	LMS2	LOPEN
1.000000	0.040656	-0.559288	-0.180234	0.057548	-0.274637	-0.514962
	(0.01207)	(0.02287)	(0.01547)	(0.01336)	(0.01828)	(0.03762)

As shown in the table 3 above, there is a negative relationship between Gross domestic product(GDP) and external reserves in the long run. The coefficient value of 0.04 suggests that one per cent point increase in external reserves will lead to a reduction in GDP. This could probably give an indication that the use of external reserves may not be generating the required multiplier effect on the Nigerian economy. The Exchange rate coefficient is however significant. The Foreign Direct Investment (FDI) variable is also negatively related to GDP. The coefficient value of 0.56 implies that a one per cent increase in FDI will lead to a reduction in GDP. This could probably give a theoretical support to the fact that most of the FDI going to Nigeria has been going mainly to the Oil sector; neglecting the real sector with high linkage to the rest of the economy. The foreign Exchange Rate (FER) coefficient of 0.18 is equally negative and highly significant, suggesting that a one per cent

point increase in foreign exchange variable leads to 0.18 per cent point reduction in GDP. This could explain why there have been a lot of foreign exchange management practices by the monetary authorities in Nigeria to find an appropriate foreign exchange management practice that would enhance growth in Nigeria. Inflation variable is positively significantly related to GDP with a value of 0.06 implying that a one per cent point increase in inflation will lead to 0.06 increases in GDP. Of course, this is suggesting that some level of inflation is somewhat desirable in the Nigerian economy to enhance economic growth. Suggesting that the inflation threshold may not have been trespassed in the Nigerian economy.

The money supply variable with a negative value of 0.27 implies that a one per cent increase in money supply leads to a reduction in Gdp by 0.27. This explains the fact that there appears to be some excess money stock in the system which probably may be

outside the domain and control of the monetary authority. The coefficient value is also highly significant. The variable of openness which is crucial to this study shows that globalisation proxied as openness with a value of 0.51 is negatively related to economic growth proxied as GDP. This implies that a one per cent point increase in openness variable will lead to 0.51 reduction in GDP. Thus suggesting that openness has not contributed positively to the economic growth of the Nigerian economy. This result supports the findings of Chete (2003) and Adewuyi (2003) for Nigeria. The result of the Error Correction Model is presented in tables 4. The table shows the short run dynamic adjustment and the adjustment to the unique long run equilibrium. Before the model selection, the models were tested for robustness by subjecting them to both serial correlation and heteroscedasticity tests. The robustness tests for Employment Model are presented in table 4 and 5. Table 4 presents the Breusch-Godfrey serial correlation LM test, while table 5 shows the heteroskedasticity test.

**Table 4: Breusch-Godfrey Serial Correlation LM Test**

F-statistic	2.52662	Prob. F(2,18)	0.1079
Obs*R-squared	7.22618	Prob. Chi-Square(2)	0.0270
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F-statistic	1.596716	Prob. F(13,19)	0.1720
Obs*R-squared	17.22931	Prob. Chi-Square(13)	0.1890
Scaled explained SS	7.985646	Prob. Chi-Square(13)	0.8445

The probability obtained from the F-statistic is 0.10. This is an insignificant value, implying the absence of serial correlation. The same result is also obtained from Heteroscedasticity test with an F-statistic probability value of 0.17 suggesting the absence of heteroscedasticity. These evidences confirm the presence of unbiasedness and efficiency of our estimates.

**Error Correction Models**

The results presented in table 6 are the parsimonious versions that emerged from the overparameterised versions of the long run models which were obtained from a systematic reduction of insignificant coefficients until the best robust models were obtained. The model selection was based on Schwartz Criteria (SC) and Akaike Information Criterion (AIC). The objective was to ensure that each of the model's overparameterised SC and AIC values are more than those of the parsimonious models. The SC and AIC for Economic Growth model reduced from -0.12 and -1.07 to -0.99 and -1.53 respectively.

**Table 6: Parsimonious Error Correction Model for Economic Growth**

Dependent Variable: DLGDP  
Method: Least Squares

Sample (adjusted): 1973 2005  
Included observations: 33 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
DLGDP(-1)	0.16671	0.158681	1.050629	0.3054
DLEXTRES	0.04384	0.020512	2.137526	0.0445
DLEXTRES(-1)	0.03503	0.028329	1.236833	0.2298
DLFDI	0.55806	0.134388	4.152640	0.0005
DLFEXR(-1)	-0.07203	0.075983	-0.948084	0.3539
DLINFL(-2)	-0.04968	0.022688	-2.189826	0.0400
DLMS2	0.14606	0.074675	1.956010	0.0639
DLMS2(-1)	-0.26764	0.114750	-2.332440	0.0297
DLMS2(-2)	0.27817	0.128557	2.163805	0.0422
DLOPEN	0.20144	0.063718	3.161494	0.0047
DLOPEN(-2)	0.09225	0.063706	1.448180	0.1623
ECM2	-1.09903	0.239294	-4.592812	0.0002
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R-squared	0.76284	Mean dependent var	0.21426	
Adjusted R-squared	0.63862	S.D. dependent var	0.16283	
S.E. of regression	0.09788	Akaike info criterion	-1.53468	
Sum squared resid	0.20122	Schwarz criterion	-0.99050	
Log likelihood	37.3223	Hannan-Quinn criter.	1.35158	
Durbin-Watson stat	1.81369			

The results of the Error Correction for Economic Growth model is presented in table 6. The table shows that a one-year period lag of GDP is positively related to GDP but not significant at 5 per cent level. The contemporaneous and a one-year variables of external reserves with coefficients of 0.04 and 0.035 respectively are also positively related to Gross Domestic Product (GDP) implying that an increase in these external reserves variables lead to 0.04 and 0.04 per cent point increases in GDP. The coefficient of the FDI variable of 0.56 is positive and highly significant at 5 per cent level implying that a one per cent point increase in FDI generates 0.56 per cent point increase in GDP. The one-year period lag of foreign exchange rate coefficient of 0.07 is negatively related to GDP but not significant. Also a two-year period lag of inflation bears a coefficient of 0.05 and it is negatively related to GDP and significant at 5 per cent level. This implies that a one per cent increase in inflation will lead to 0.05 per cent point increase in GDP. The impact of money supply variable is rather inconsistent. The contemporaneous variable of inflation has a coefficient value of 0.146 and it is significant with a positive sign implying that a one per cent point increase in contemporaneous money supply variable will generate 0.15 increases in GDP. The one-year period lag of money supply

variable of 0.27 is however negative and significant. This implies that one per cent point increase in one-year period lag of money supply will generate 0.27 decrease in GDP. The two-year period lag variable on the other hand, has a coefficient value of 0.28 with a negative sign and it is equally significant at 5 per cent level. Thus a one- per cent point increase in the two-year period lag of money supply variable leads to and increase of 0.278 per cent point increase in GDP. The contemporaneous variable coefficient of openness variable of 0.20 is both positive and significant at 5 per cent level implying that a one per cent point increase in contemporaneous variable openness variable will lead to 0.20 increase in GDP. The two-year period lag of openness variable of 0.09 is positive but not significant at 5 per cent level. Although the magnitude of openness coefficients are low, the findings reveal that globalisation is contributing to some extent positively to the economic growth of Nigeria in the short run. This position is in line with Levine and Renelt (1992), Seghezza (1992), Zervos (1998), and Levine and Zervos (1998) and Akinlo (2003). The 1.09 coefficient value of the Error Correction term has the expected negative sign and it is significant at 5 per cent level. This suggests that 109 per cent disequilibrium in the previous year economic growth variable is adjusted for the following year. This shows that economic growth has a high response rate to any contrived endogenous initiatives.

## CONCLUSION

Emerging from the discussions above are some findings that stand out clearly as follows: the globalisation exercise has the potency to generate a positive impact on economic growth in the short run. However, Globalisation could generate a negative impact on economic growth in the long run. While the results appear to be against the potential benefits of globalisation in the long, the short run positive contribution of globalisation to economic growth appears to reveal the latent potentials of globalisation to enhance long run growth if well managed in the short run. It is therefore recommended that while Nigeria as a member of the comity of nations could not stand aloof from participating in globalisation exercise, it needs to re-examine its current position in terms of how to face the emerging challenges from globalisation practice so as not to further worsen the extant poverty outlook of the Nigerian economy. Caution should therefore be exercised not to open up all its growing sectors to international competition, so as not to permanently stiffen economy's growing sectors. This becomes necessary as some of the products from the technologically backward sectors of LDCS may find it difficult competing with the products from the technologically advanced sectors of the world.

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